PATENT CLAIMS

1. A brake system, in particular for utility vehicles, having a front-axle brake circuit (20) and a rear-axle brake circuit (13), having a load emptying valve (12) which is provided in the front-axle brake circuit and which influences the brake pressure at the brake cylinders (32) of the front axle, and having an automatic load-dependent brake pressure regulator in the rear-axle brake circuit (13), the brake pressure at the brake cylinders (14) of the rear axle being influenced as a function of the load acting on the rear axle, a control inlet (36) of the load emptying valve (12) being connected to the rear-axle brake circuit (13) via a fluid connection (16), characterized in that a check valve (17) is provided in the fluid connection (16) between the load emptying valve (12) and the rear-axle brake circuit (13), said check valve (17) being switched to its shutoff position when a brake slip regulating process is carried out at the rear axle, the fluid connection from the load emptying valve (12) in the direction of the brake cylinders (14) of the rear axle being shut off.

2. The brake system as claimed in claim 1, characterized in that the check valve (17) is formed with an integrated nonreturn valve (18) which, in the shutoff position of the check valve (17), is connected into the fluid connection (16) and prevents a drop in pressure at the control inlet (36) of the load emptying valve (12).

3. The brake system as claimed in claim 2, characterized in that the nonreturn valve (18) permits a rise in pressure at the control inlet (36) of the load emptying valve (12).

4. The brake system as claimed in one of the preceding claims, characterized in that, in order to adapt the pressure at the control inlet (36) of the load emptying valve (12) to the current brake pressure at the brake cylinders (14) of the rear-axle brake circuit (13), the check valve (17) can be switched in a defined fashion from its blocking shutoff position into its nonblocking position of rest.

5. The brake system as claimed in one of the preceding claims, characterized in that the check valve (17) is integrated into another valve, in particular the service-brake valve (11) or a relay valve (21) which supplies the rear axle with supply pressure from the brake system.

6. The brake system as claimed in one of the preceding claims, characterized in that both the automatic load-dependent brake pressure regulating process and the brake slip regulating process can be carried out at the rear axle by means of the same pressure regulating elements (19, 15) of the rear-axle brake circuit (13).